AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph at page 1, lines 6-12 as follows:

The present invention relates to transparent block copolymers and in particular to transparent block copolymers produced from ~~monovinyl substitued~~ monovinyl-substituted aromatic monomers and conjugated dienes. The present invention also relates to a process for producing transparent block copolymers and in particular for producing transparent block copolymers of ~~monovinyl substitued~~ monovinyl-substituted aromatic monomers and conjugated dienes.

Please amend the paragraph at page 3, lines 8-12 as follows:

The present invention provides a novel transparent resinous block copolymer of ~~monovinyl substitued~~ monovinyl-substituted aromatic hydrocarbon and conjugated diene which exhibits a high processability and conjugated dienes which exhibits a high processability during transformation in articles with high impact resistance, high flexural modulus and high transparency.

Please amend the paragraph at page 3, lines 13-20 as follows:

It is another object of this invention to provide a novel transparent resinous block copolymer of ~~monovinyl substitued~~ monovinyl-substituted aromatic hydrocarbon and conjugated dienes suitable for use in blends with polymers of styrene, said blends exhibiting high impact resistance, high flexural module, high transparency and high processability during transformation in articles.

Please amend the paragraph at page 4, lines 20-30 as follows:

> The vinyl-aromatic content, the molecular weights of the two major species as well as their relative proportions are controlled so that the final mechanical properties and the improved processability can be achieved. The relative proportion of the two major species is proportional to the molar ratio of the multifunctional deactivator agent to the active initiator corrected for the ~~stoechiometry~~ stoichiometry. As indicated above, the process of the invention is thus based in most part on the control of this ratio, which is selected so that, given the relative contents of the monomers, the final properties of the resinous copolymer can be achieved.

Please amend the paragraph at page 4, line 31 – page 5, line 10 as follows:

> Thus, if the first polymer species $(S_1\text{-}B_1)X$ is, for example, a styrene-butadiene block copolymer having a high styrene content, for example greater than 50 wt%, and the second block polymer species having high styrene content, for example greater than 80 wt%, this can provide high transparency for the block copolymer in conjunction with high impact resistance. The provision of in situ generated first and second polymeric species provides a high processability polymer grade, which can readily flow in an extrusion line, injection machine, blown-film line or blow-molding machine. It should be noted that it is conceivable to carry out this process in multiple reactors followed by mixing the resulting polymer solutions.

Please amend the paragraph at page 8, line 31 – page 9, line 10 as follows:

> In accordance with a specific aspect of the invention, S_1 and S_2 are monovinyl-substituted aromatic homopolymer blocks having

molecular weights within the range of about 5000 Daltons to ~~20000~~ 20,000 Daltons for S_1 and about ~~50000~~ 50,000 Daltons to ~~150000~~ 150,000 Daltons for S_2. B_1 is a conjugated diene homopolymer block having a molecular weight within the range of about 3000 ~~daltons~~ Daltons to ~~10000~~ 10,000 Daltons. B_2/S_2 is a conjugated ~~diene/monovinyl substitute~~ diene/monovinyl-substituted aromatic random copolymer block (tapered block) having a molecular weight within the range of about ~~10000~~ 10,000 Daltons to ~~100000~~ 100,000 Daltons. The molecular weight of S_2 is significantly greater than that of S_1, for example from a factor of 5 up to 10.

Please amend the paragraph at page 9, lines 11-16 as set forth below:

The copolymeric species (ii) obtained according to the process of the invention has a molecular weight generally ranging from about ~~100000~~ 100,000 Daltons to about ~~300000~~ 300,000 Daltons, preferably from about ~~140000~~ 140,000 Daltons to ~~200000~~ 200,000 Daltons, especially from about ~~150000~~ 150,000 Daltons to ~~180000~~ 180,000 Daltons.

Please amend the paragraph at page 10, lines 7-15 as set forth below:

The ~~monovinyl substitued~~ monovinyl-substituted aromatic monomers which can be employed in the block copolymer of the present invention include, for example, styrene, alpha-methylstyrene, vinyltoluene, 4-n-propylstyrene, 4-cyclohexylstyrene, 4-decylstyrene, 2-ethyl-4-benzyl-styrene, 4-p-toluylstyrene, 4-(4-phenyl-m-butyl)styrene, vinyl-naphthalene and other styrenes which are substituted on the ring. Styrene, isoprene and 1,3-butadiene are the preferred monomers due to their availability and consistent good results.

Please amend the paragraph at page 10, lines 16-18 as follows:

Conjugated dienes and ~~monovinyl-substitued~~ monovinyl-substituted aromatic monomers are, as usual in the art, preferably free of impurities which may act as scavengers in the reaction medium.

Please amend the paragraph at page 12, line 30 – page 13, line 4 as follows:

Step (1) is charging solvent, (preferably with polar compounds, see below) and ~~monovinyl-substitued~~ monovinyl-substituted aromatic monomer referred to as S_1, in the reactor to form the first block species R-S_1-M in the presence of sufficient organo-alkali metal initiator RM to initiate the polymerization and achieve the molecular weight desired for. This molecular weight is controlled by in-line or laboratory Gel Permeation Chromatography (GPC).

Please amend the paragraph at page 13, lines 8-12 as follows:

At the beginning of this step, the temperature of the ~~monovinyl-substitued~~ monovinyl-substituted aromatic monomer in the presence of the solvent and the organolithium initiator which is known as the initiation temperature (T_{init}) is preferably set below 60C, more preferably below 55C.

Please amend the paragraph at page 13, lines 18-25 as follows:

In order to increase the initiation and propagation rate, especially when using alkyllithium like ~~n-Butyllithium~~ n-butyllithium, small amount of polar compounds can be added, eventually in mixture with solvent to the reaction medium before adding the initiator. By modifying the polarity of the medium, one also affects the randomization of the ~~monovinyl-substitued~~ monovinyl-substituted aromatic monomer during the copolymerization of said monomer in mixture with the conjugated diene (see below).

Please amend the paragraph at page 14, lines 1-11 as set forth below:

> Step (3) is charging a multi-functional deactivation agent X after completion of step (2). This ~~desactivation~~ deactivation agent is an agent known in the art to be a coupling agent, but used here for a different purpose, which is partial killing or ~~desactivation~~ deactivation. In the following, it will be referred to as either the ~~desactivation~~ deactivation agent or the coupling agent (without making any difference). The r amount of said mult-functional deactivator is selected so as to be less than the ~~stoechiometric~~ stoichiometric amount relative to the initiator really used to start the polymerization and referred to as RM_a.

Please amend the paragraph at page 14, lines 12-13 as follows:

> One of the key aspects of the invention is the control of the respective amounts of initiator and ~~desactivating~~ deactivating agent.

Please amend the paragraph at page 14, lines 25-27 as follows:

> In the invention, the ratio ~~desactivating~~ deactivating agent X:initiator (e.g., RM_a) is comprised between ~~0,5 and 0,9~~ 0.5 and 0.9 of the ~~stoechiometry~~ stoichiometry, preferably between ~~0,6 and 0,8~~ 0.6 and 0.8.

Please amend the paragraph at page 16, lines 4-10 as follows:

> By a proper selection of the polar compound, or randomizer, it is possible to adjust the proportion of the random ~~monovinyl-substitued~~ monovinyl-substituted aromatic monomer dispersed in the conjugated diene phase. As these polar compounds also affect the 1,2 addition of the conjugated diene monomer and the resulting

vinyl character, it is possible to adjust the molecular structure of the B_1-B_2/S_2 part of the copolymer.

Please amend the paragraph at page 16, lines 11-15 as follows:

In one embodiment of this invention, it is feasible to add an additional amount of randomizer or polar compound or mixture thereof in order to increase the random part of the monovinyl-substitued monovinyl-substituted aromatic monomer and/or promote the 1,2 addition of the conjugated diene.